REMARKS

Claims 11, 12, 14 and 27-56 are pending in the application. Claims 11, 12, 14 and 27-56 stand rejected. Drawings were accepted March 7, 2005. The Examiner's rejections are addressed below in substantially the same order as in the office action.

REJECTIONS UNDER 35 USC § 103

Claims 11, 12, 14, 27-32, 35, and 40-47 stand rejected under 35 USC § 103(a) as being unpatentable over Bary et al. (U.S. 5,822,273) when taken in view of Savit (U.S. 3,990,036). Applicant requests review, because the Examiner has failed to present a prima facie case of obviousness. As explained below, and contrary to the Examiner's assertions, the prior art combination as proposed fails to teach each and every element of the independent claims.

Claims 11, 12 and 14 are independent claims.

Independent system claim 11 includes:

"...one or more sensors adapted to sense conditions and generate signals representative of the sensed conditions including a memory for storing the signals, *each sensor being adapted to control a channel assignment and a time slot for transmitting the signals.* (emphasis added)

Independent method claim 12 includes:

"...using the sensors to control a channel assignment and a time slot for transmitting the data..."

Independent system claim 14 includes:

"...transmitting signals representative of the sensed conditions, *each sensor station being adapted to control a channel assignment and a time slot for transmitting the signals...*"

There is clear error in fact in that the prior art fails to teach the element of ***a sensor controlling a channel assignment and a time slot for transmitting signals***. Contrary to the Examiner's assertions, the Savit reference does not teach a sensor or sensor station wherein the sensor/sensor station controls a channel assignment and time slot. The Examiner admits at page 3

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of the action that Bary et al. fails to teach each sensor being adapted to control a channel (frequency) assignment for transmitting signals.

Applicant submits that the Savit reference does not disclose a seismic sensor adapted to control a channel assignment and time slot. Furthermore, such a reading would frustrate the stated object of the Savit disclosure.

Savit discloses in the Abstract "All of the sensors are identical and interchangeable. A unique polling signal is *transmitted over a telemetry link to each sensor. Upon receipt of the polling signal, each sensor in turn transmits its accumulated data over the telemetry link to a recording device.* "(emphasis added) Note that the data ports in Savit are polled and then transmit in response to the polling. In the paragraph bridging columns 1 and 2, Savit discloses:

> " Each sensor is equipped with a switching means and a signalling means for communicating with the recording system through a high-capacity transmission channel such as a microwave channel, a shielded twisted pair of conductors, or a coaxial transmission line. *The switching and signaling means is adapted to transmit a digital data message comprising a fixed number of data bits into the transmission channel in response to a unique interrogation or polling signal received from the recording system. Each sensor is polled in sequence as the polling signal propagates along the transmission line from the recording system...All sensors respond, in turn, to the polling signal, and no sensor responds to the digital data message from another sensor.*" (emphasis added)

The reference then clearly states in column 2, "The object of the telemetry system is to ***fetch, upon command by the recorder*** 12, a digital data-sample from each seismic sensor in turn, and to record the sample in a prescribed sequential order in a storage medium such as a computer memory or a magnetic tape." (emphasis added) The next sentence states The time required to poll all of the sensors and to record the data samples derived therefrom constitutes one ***scancycle which is controlled by clock 14.*** (emphasis added)

Then, a careful review of the drawings (Figs. 1-2) reveals that clock 14 controls

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switch 20, both of which are upstream along the coax line transmission link 22 linking the switch 20 to data ports 30-34 and associated sensors 24-28. Referring to Savit, column 2 beginning at line 57, switch 20 is actuated thereby connecting transmission line 22 with the clock 14. At the start of the scan-cycle, a unique digital polling signal is injected into the transmission line 22. The polling signal is a serial bit-stream having a unique format. Alternatively, the polling signal may be transmitted in a separate channel independent of the data transmission line. ***Immediately after injection of the polling signal, switch 20 is actuated to lower contact 38, thereby connecting recorder 12 with transmission line 22 through formatter 15, and simultaneously a start-scan mark (SSM) is sent to recorder 12.*** (emphasis added)

The polling signal propagates along transmission link 22 and consecutively commands each of data-ports 30, 32 and 34 to transmit digital data-samples back to recorder 12. (emphasis added) The propagation delay of the polling signal between successive data-ports is sufficient to allow transmission of the last bit of a data-sample from the previously activated data-port, before the arrival of the first bit of the digital data-sample from the data-port next in line.

There must be at least one bit-time separation between the two data samples. The digital data-samples consist of a single bit or a serial bit stream whose format is distinguishable from the polling signal. Thus all data-ports recognize the same polling signal, but no data-port recognizes the signal representing a datasample. In the alternative embodiment in which the polling signal is transmitted on a separate line, no special coding or identification logic is required. ***Clock 14 starts a scan-cycle by encoding and transmitting a unique polling signal consisting of a serial bit stream having a prescribed format.*** (emphasis added)

In column 3 beginning at line 54, Savit discusses the data port 30. Data port 30 includes a line receiver 46, decoder 48, parallel-in, serial-out shift register 50, a storage register 52, analog-to-digital (A/D) converter 54, and a line driver 56. During its idle portion of a scan-cycle, seismic sensor 24 acquires an analog signal which is sampled and converted to a digital number by A/D converter 54. The digital number is a numerical representation of the analog signal level at the time of sampling and digitization. The digital

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number is defined as a data sample or a data word. The output from A/D converter 54 is stored in storage register 52, while data port 30 is awaiting its turn to transmit a digital data-sample. The unique polling signal is detected by line receiver 46 and is identified by decoder 48. ***Upon recognition of the polling signal, decoder 48 triggers shift register 50. When triggered, shift register 50 accepts in parallel the predetermined number of bits from the digital number resident in storage register 52 for transmission in serial order to line driver 56, and thence for subsequent transmission to recorder 12.*** Emphasis added)

It is clear that Savit does not disclose sensors controlling anything relating to channel assignment or time slots. All control appears to be in the recorder section including the clock 14 with the data ports merely responding in a prescribed manner to the polling signal.

CONCLUSION

For all the foregoing reasons, Applicant submits that the application is in a condition for allowance. No fee is believed due for this paper. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. **13-0010 (IO-1036US).**

Respectfully submitted,

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CERTIFICATE OF FACSIMILE TRANSMISSION

I do hereby certify that this correspondence is being transmitted via facsimile, to the Commissioner for Patents, Examiner Eliseo Ramos Feliciano, facsimile no. (571) 273-8300, on this 14th day of NOV., 2005.

Beth Pearson-Naul

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